UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,848	08/06/2003	Yukihiro Katai	Q76812	6510

23373 7590 05/03/2006

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
MANOHARAN, VIRGINIA	
ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/634,848	KATAI ET AL.	
	Examiner	Art Unit	
	Virginia Manoharan	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) *30-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election without traverse of Group I, claims 1-29 in the reply filed on Febraury 17, 2006 is acknowledged.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicants' cooperations are requested in correcting any errors of which applicants may become aware in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a).The claimed "condensing said solvent gas", recited in claim 1, provides for ambiguity since a "gas" is normally non-condensable, unlike a –vapor—which is condensable.

b). It is not seen how the steps of concentrating and condensing can both occur in the same tank as recited in claim 1, since the former may require heating as opposed to the latter process which may require cooling.

c).The inconsistent used of terminology in the claims is improper. For example:

1). "at least one flash nozzle" in claim 6, line 2 as opposed to "said flash nozzle" in claim 6, line 3 and claim 19, last line.

d). In claim 21, it is unclear what "said solution" is being referred to as there two solutions mentioned e.g., in claim 6, the fresh and the original solution?

e). It is unclear what constitute the "other solutions" recited in claims 25-26 and the "predetermined value" in claim 7 within the context of the claimed invention as they are not specified in the claims; and latter appears not to be recited in the specification .

f). The parenthetical statement in a claim is improper as every feature recited in a claim becomes a part of the overall subject matter. By placing terms in parenthesis renders the claim(s) ambiguous as to whether or not the phrase(s) should be disregarded. For example the "(total number/5) in claim 27.

g). Claims 24 and 28-29 provide for the use of products, i.e., the concentrated solution and polymer films respectively, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicants are intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 24 and 28-29 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claims 22-23 are objected to because the article "the" has been omitted before the "gas content" in these claims. Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (4,414,341) in view of Kunst (3,649,471)

Williams discloses a ".. method for concentrating a solution in which a solute is dissolved to a solvent, comprising steps of: generating a solvent gas from said solution in a concentrating tank to concentrate said solution..". The process of Williams differs from the claimed invention in that claim 1,for example, recites the step of ".. condensing said solvent gas in said concentrating tank to recover as a condensed solvent...". However, Kunst teaches that incorporating condensation with evaporation in the same tank is a known expediency in the art. See col. 2, lines 53-70. To combine Kunst with Williams would have been obvious to one of ordinary skill in the art inasmuch as both references are directed to same the processing environment involving concentration by evaporation.

Claims 2-9, 11-26 and 28-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Kunst as applied to claim 1 above, and further in view of Lazet (3,713,990).

The claimed method "wherein the concentrating tank includes a tank main body for containing said solution and a roof disposed on said tank main body, and an inclined inner surface of said roof forms a condensing surface for condensing and recovering said solvent gas" as claimed e.g., in claim 2 is rendered obvious by Lazet. Note Fig.1 . Note also the liquid drain means (30) near the lower portion of the condensation zone (26) of Lazet which is deemed corresponding to the claimed "gutter" as further claimed in claim 3. To incorporate the process taught or suggested by Lazet to Williams' process or method would have been obvious to one of ordinary skill in the art inasmuch as Kunst shows a condenser having inclining surfaces. See Figs. 2-3.
The claimed parameters such as: residence time in claim 9; concentration in claims 13-15; viscosity in claims 16-17; temperature in claims 18-19; absolute pressure in claims 20-21; and the gas content in claims 22-23 are all deemed to be result-effective variables which ordinarily are within the skilled of the art.

Claims 10 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a). Kozlowski discloses a process using a flash nozzle.

b). Rogers discloses connecting a condenser with an evaporator.

c). Thurman discloses a distillation apparatus with inclining surfaces.

d). Mato et al discloses a preliminary filter used in the concentration of a high-molecular weight organic substance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRIMARY EXAMINER
ART UNIT 1764
5/1/06